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MEMORANDUM

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DATE: May 1, 1979

FILE NO:

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112-17-16

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SUBJECT: Ward Cove Creek Minnow Trapping

MAY 1 1979

On April 25 and 26, 1979, selected parts of Ward Cove Creek were walked and minnow trapped by Marletta Eygabroad, John McConnaughey and myself.

On April 25, the creek from the dam at Connell Lake to the upper end of Last Chance Campground was surveyed (see attached map for areas and trap locations). The weather was warm and sunny. The creek was low and clear. The water temperature at the dam was 5.5°C at 1335 hours and 6.0°C at Last Chance Campground at 1620 hours.

Two emergent fry (unidentified, but probably coho) were observed 250-350 meters below the dam, at a point where the creek splits into two channels. No other emergent fry were observed until we got downstream to the stretch of water adjacent to where the dam road splits from the road to Lake Harriet Hunt. 100-200 emergent coho fry were observed in the area where the road splits.

Minnow trapping revealed a similar pattern of distribution for older age class fish (see attached table for trapping data), although the "barren" stretch of creek has good rearing habitat. A few coho's were caught at the dam, (trap 1) and at a site where the creek split into two channels (trap 6). No other fish were trapped until the area of emergent fry abundance (traps 12-16). No rainbow trout were trapped until 400 meters below a rearing fish barrier three-eighths to one-half mile below the dam (see attached map), although many dead rainbows were recovered from the upper stretch of creek after the 1978 chlorine spill.

30 cohos and three cottids were caught in seven traps set above the rearing fish barrier falls (~~Figure 1~~ *map*). Only two traps, however, had fish in them. (Traps 1 and 6).

Nine traps were set in the one-half to three-quarter mile stretch from the rearing fish barrier to Last Chance Campground (traps 8-16). Only traps 12-16 caught fish.

The first rainbow trout were caught in the area where the road split (Traps 12-13). Only nine rainbows were captured in the 16 traps that were set. They represented two and probably three year classes according to length frequency distribution. Some of the larger cohos were starting to smoltify.

On April 26, 1979, other parts of Ward Cove Creek were walked and trapped. The area from Last Chance Campground on downstream to a point approximately 150 meters below the tributary that enters at Last Chance was surveyed. The hanging bridge area was also surveyed and one trap was set between the concrete bridge and the inlet to Ward Lake.

The weather was sunny and warm. The water was low and clear. The water temperatures were; 6.5°C at 1345 hours in the Last Chance tributary, 6.5° C at 1350 hours in Ward Creek at Last Chance, and 6.5° C at 1445 hours at the hanging bridge.

Trapping was very poor (see attached table for trap data). Due to a shortage of bait eggs, only seven traps were set. (These were underbaited). Also, I got involved with citing a person for fishing illegally and I did not participate in setting the traps in the hanging bridge area. These traps weren't all in good locations for effective fishing.

Six rainbow trout and four coho salmon were caught in the seven traps we set on April 26. (Traps 17-23). No fish were trapped in the Last Chance area.

The rainbows trapped appeared to be two check fish, and one may have been a three check. The cohos were probably one check fish.

I observed several rearing rainbows in the area of two traps (20 and 21), but due to poor placement and a shortage of bait, these traps did not fish well.

Incidental to the minnow trapping, I observed thousands of simuliids (black flies) larvae and a few baetid (Mayfly) and chironomid (midge) larvae in the stretch from the dam to Last Chance Campground.

One steelhead redd was observed in the area of Last Chance Campground. No adult steelhead or redds were observed upstream from there.

Ward Cove Creek Minnow Trapping Data

April 25 and 26, 1979

<u>Trap No.</u>	<u>Site Description</u>	<u>Fishing Time</u>	<u>Comments</u>
1.	Pool below dam. 4 ft. deep 10" rocks and mess, slow current, sunny.	In 1335 Out 1435	<u>2</u> SS-89,94 mm <u>3</u> Cottids-unmeas.
2.	Behind log in riffle, 1 ft. deep. Large gravel (2-3"), mod. current, shaded.	In 1345 Out 1443	0 fish
3.	Pool, 18" deep, broken rock, mod. current, shaded.	In 1349 Out 1446	0 fish
4.	Pool, 2 ft. deep, 4-8" broken rock, slow current, shaded.	In 1354 Out 1454	0 fish
5.	Pool, 3 ft, deep, 6-10" rock, mod. current, shaded.	In 1400 Out 1458	0 fish
6.	Side channel, 18" deep in front of log jam, sand and detritus, slow current, deep shade.	In 1400 Out 1458	<u>28</u> SS-83,66,79,81, <u>76</u> ,74,75,70,88,67,85, 88,78,82,75,75,84,78,92, 76,80,68,70,72 mm (±2)
7.	Middle of large pool, 2 ft. deep. 2-10" rock, slow current, shady	In 1407 Out 1511	No fish
8.	Backwater, 18" deep, bedrock and sand, slow current, partly shaded.	In 1415 Out 1515	No fish
9.	Rocky area, 15" deep, large rocks, slow current, shaded	In 1420 Out 1520	No fish
10.	Backwater, 18" deep, bedrock and sand, slow current, partly shaded.	In 1527 Out 1610	No fish
11.	In run, 20" deep, 3-8" rock and sand, moderate current, sunny.	In 1530 Out 1614	No fish
12.	Backwater under brances, 20" deep, sands and bedrock, slow current, sunny.	In 1537 Out 1620	<u>1</u> RB - 99mm <u>2</u> SS - 93,92mm
13.	Edge of deep pool, 2 ft. deep, sand and fine gravel, slow current, partly shaded.	In 1540 Out 1625	<u>2</u> RB - 57,49 mm

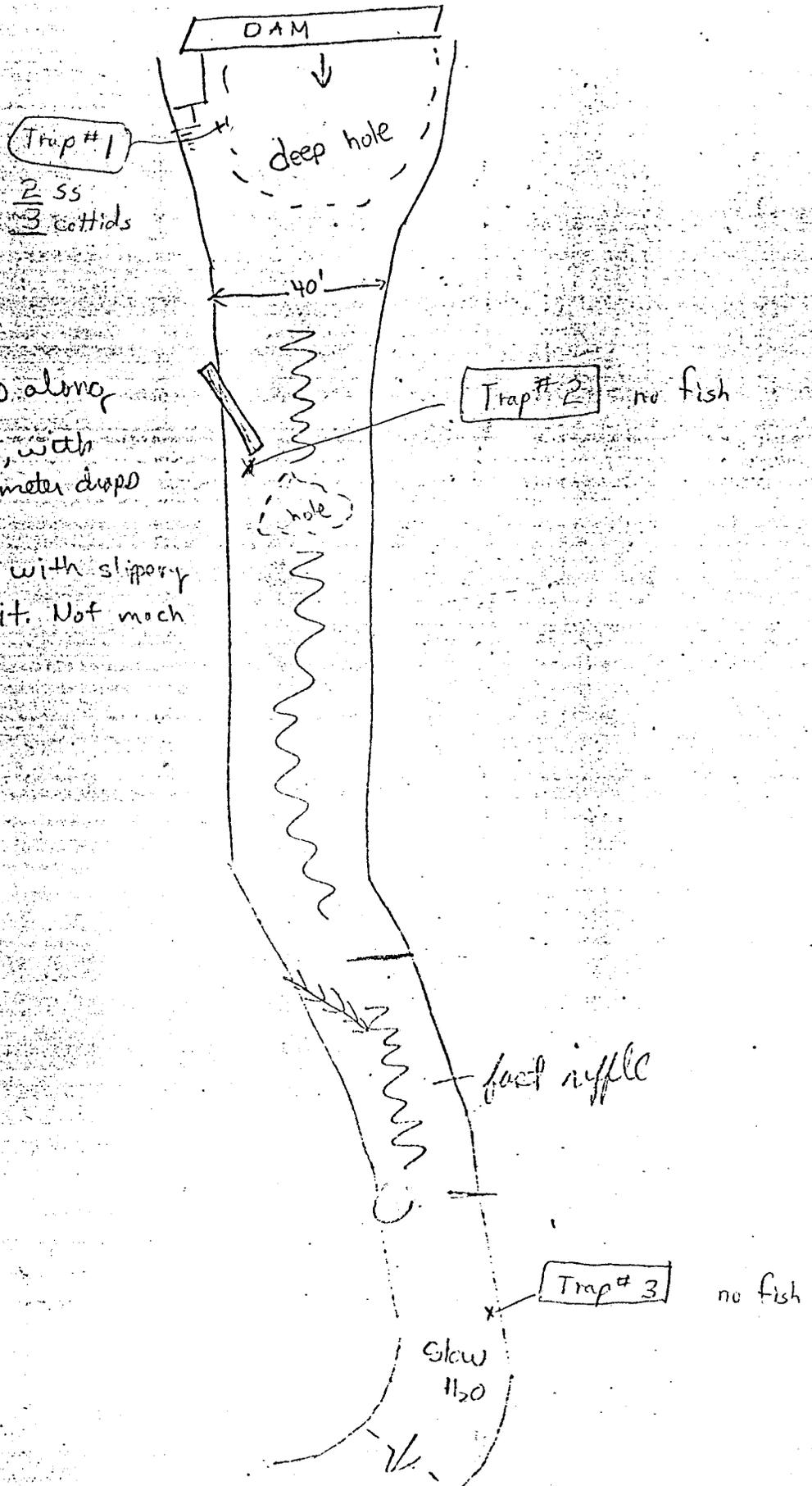
<u>Trap No.</u>	<u>Site Description</u>	<u>Fishing Time</u>	<u>Comments</u>
14.	Under cut-bank, 20" deep, 1/2-1" gravel and sand, moderate current, shaded.	In 1545 Out 1630	<u>1</u> RB - 141 mm <u>8</u> SS - 66,63,64,70, 66,63,60,63 mm
15	Behind root, 2 ft. deep, 2-3" gravel, slow current, shaded	In 1550 Out 1635	<u>3</u> RB - 120,85,98 mm <u>6</u> SS - 67,58,69,66, 85,mm
16.	Edge of deep log jam pool, 2 ft. deep, 1-2" gravel, slow current, shaded.	In 1554 Out 1637	<u>2</u> RB - 88,89 mm <u>23</u> SS - 80,93,87,88, 80,105,92,80,84, 76,84,81,104,92,79, 89,78,80,75,77 mm (43)

April 26, 1979

17.	Behind rock in run, 18" deep, moss and broken rock, moderate current, shaded.	In 1350 Out 1535	No fish
18.	Tailout, 12" deep, 2-4" gravel and sand, moderate current, shaded.	In 1357 Out 1537	No fish
19.	Head of riffle, 15" deep, 1-2" gravel, moderate current, partly shaded.	In 1404 Out 1540	No fish
20.	Middle of riffle, 5-6" deep, 3-10" rock, swift current, partly shaded, poor location.	In 1437 Out 1558	<u>2</u> RB - 112,134 mm
21.	Riffle at head of hanging bridge pool, 12" deep, 2-4" gravel, moderate current, shaded.	In 1445 Out 1604	No fish
22.	Middle of riffle, 12" deep, 3-8" rock, moderate current, sunny.	In 1453 Out 1609	<u>4</u> RB - 104,89,104 mm (+ 1)
23	Middle of riffle, 12" deep, fine gravel and sand, slow current, partly shaded.	In 1507 Out 1617	<u>4</u> SS - 67,66,60 mm (+ 1)

April 25, 26, 1979

Minnow trap Locations



large rocks and alders along bank - water fairly fast, with lots of riffles and 1/2-1 meter drops all the way down.

Bottom is very rocky, with slippery green moss attached to it. Not much sand evident.

no fish

Slow

Trap # 5

no fish

hile

Trap # 6

28 SS

Riffles

Log.

beach

stream

1 RC

0 RC

0 RC

0 RC

no fish

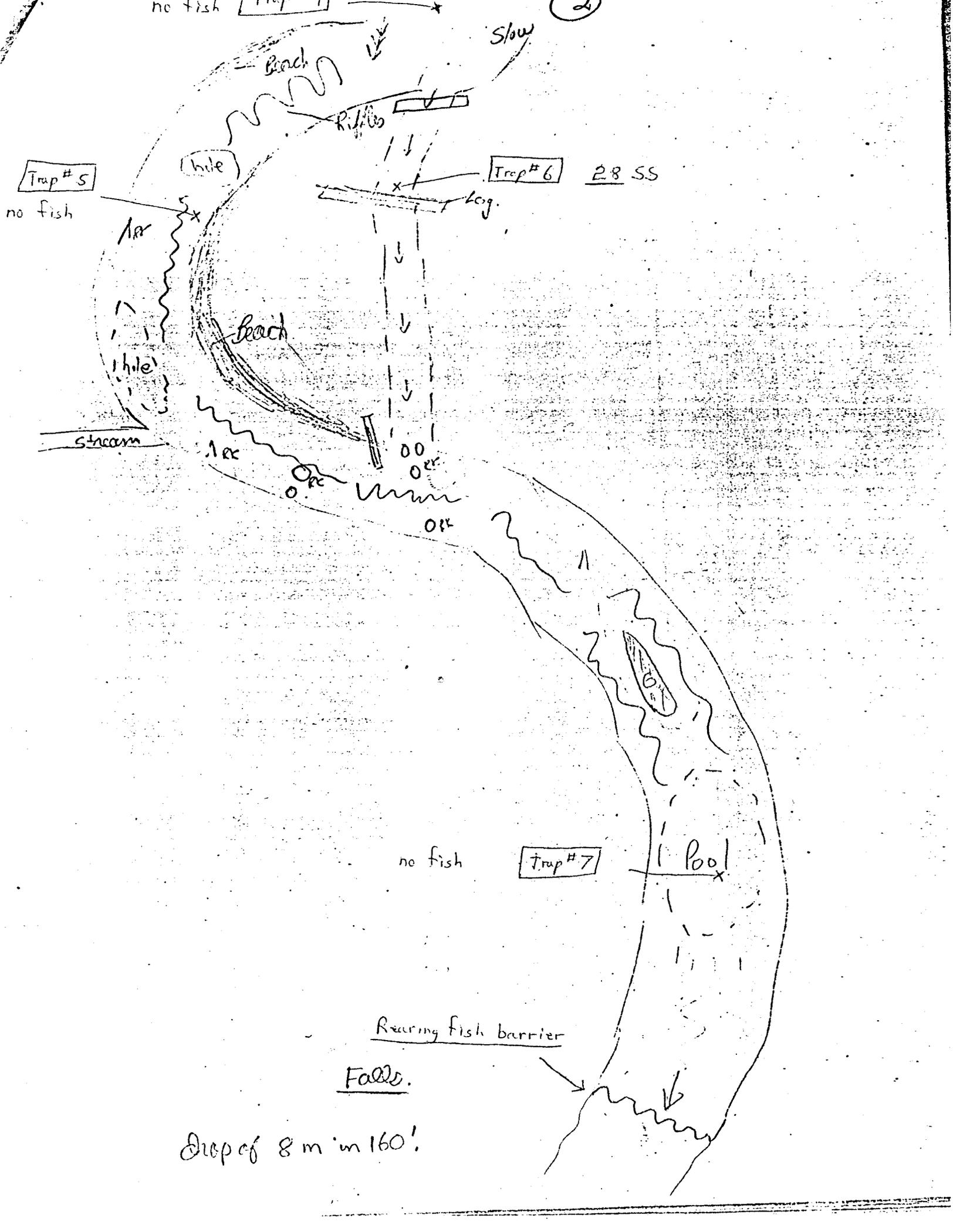
Trap # 7

Pool

Rearing fish barrier

Falls.

Drop of 8 m in 160'



x made trail through woods.



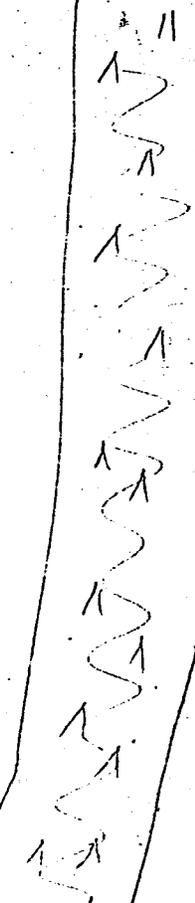
RKs and Riffles.

no fish

Trap # 8



lg RKs and Riffles



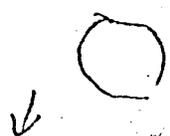
no fish

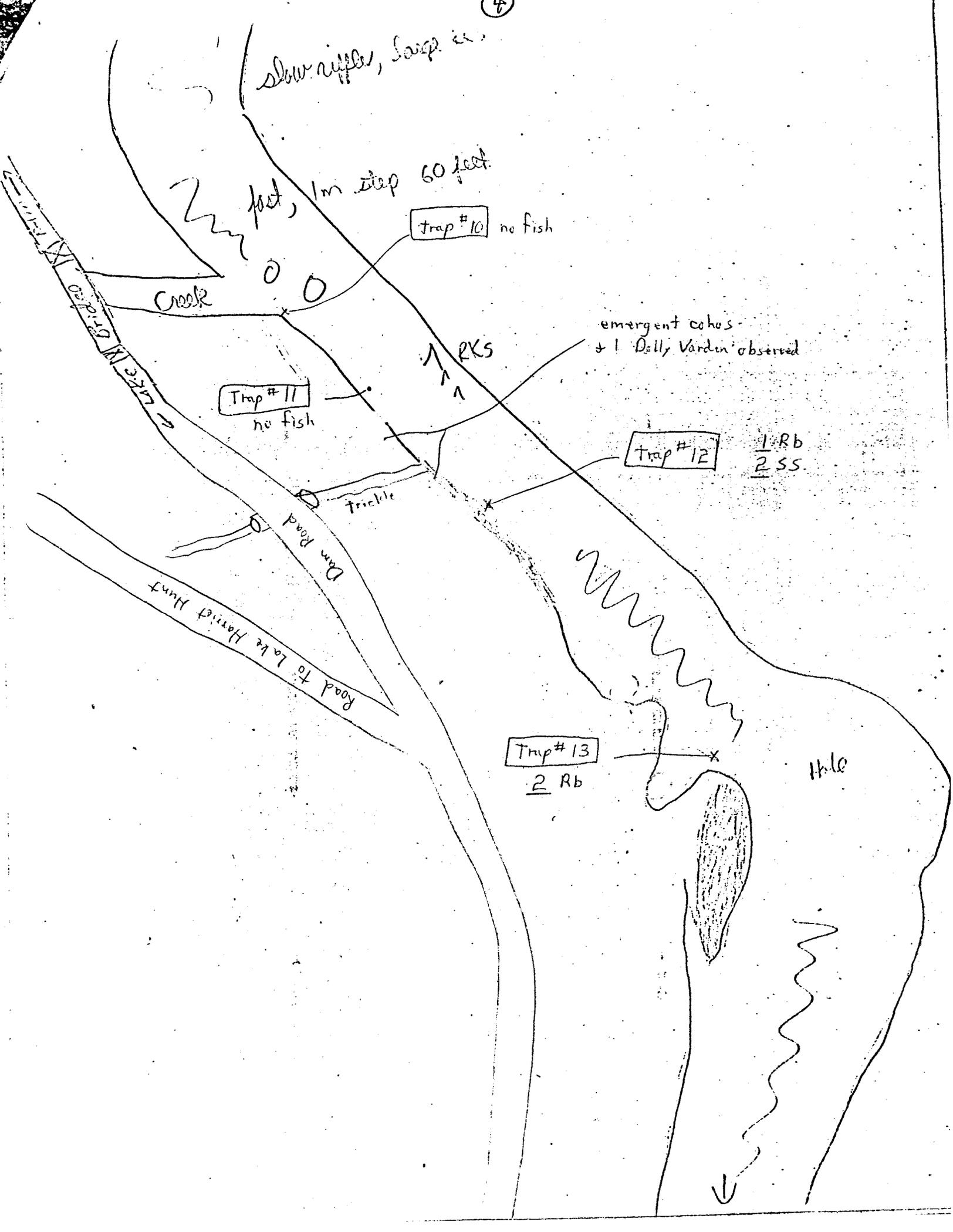
trap # 9



fast water

steep bank





slow riffles, large rocks

200 feet, 1m step 60 feet

Trap #10 no fish

Creek

Trap #11 no fish

RKS

emergent cohoes + 1 Dolly Varden observed

Trap #12
1 Rb
2 SS

trickle

Road to Lake Harriet Hunt

Trap #13
2 Rb

Hole

4

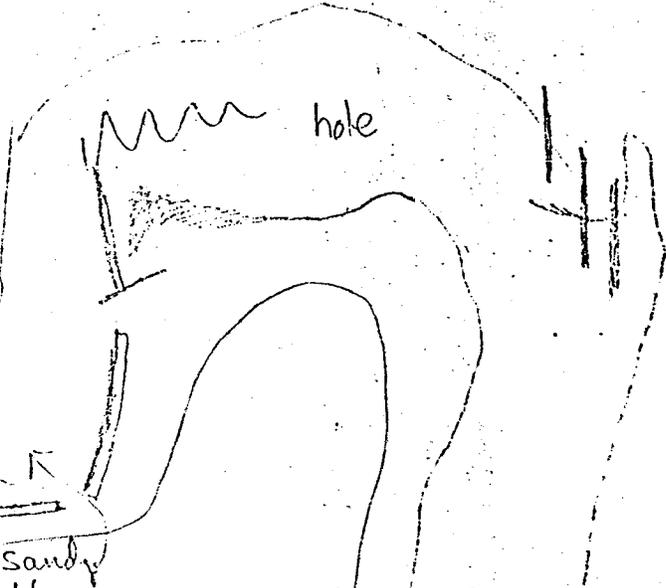
Nice med RK Bottom, slow easy riffles.

Trap # 14
1 PL
8 SS



3 Rb Trap # 15

2 Rb
23 SS
Trap # 16



hole

hole

Nice Sandy Bottom

Trail

Deep

tributary

Campground

Fry evident

Slow

SH held 4/22/79



Log Jam

Trap # 17

Deep

no fish



6

x — Trap # 18
no fish

Trap # 19 no fish

sandy shallow bottom
No current.

fast ripples

Very deep
Sandy Bottom

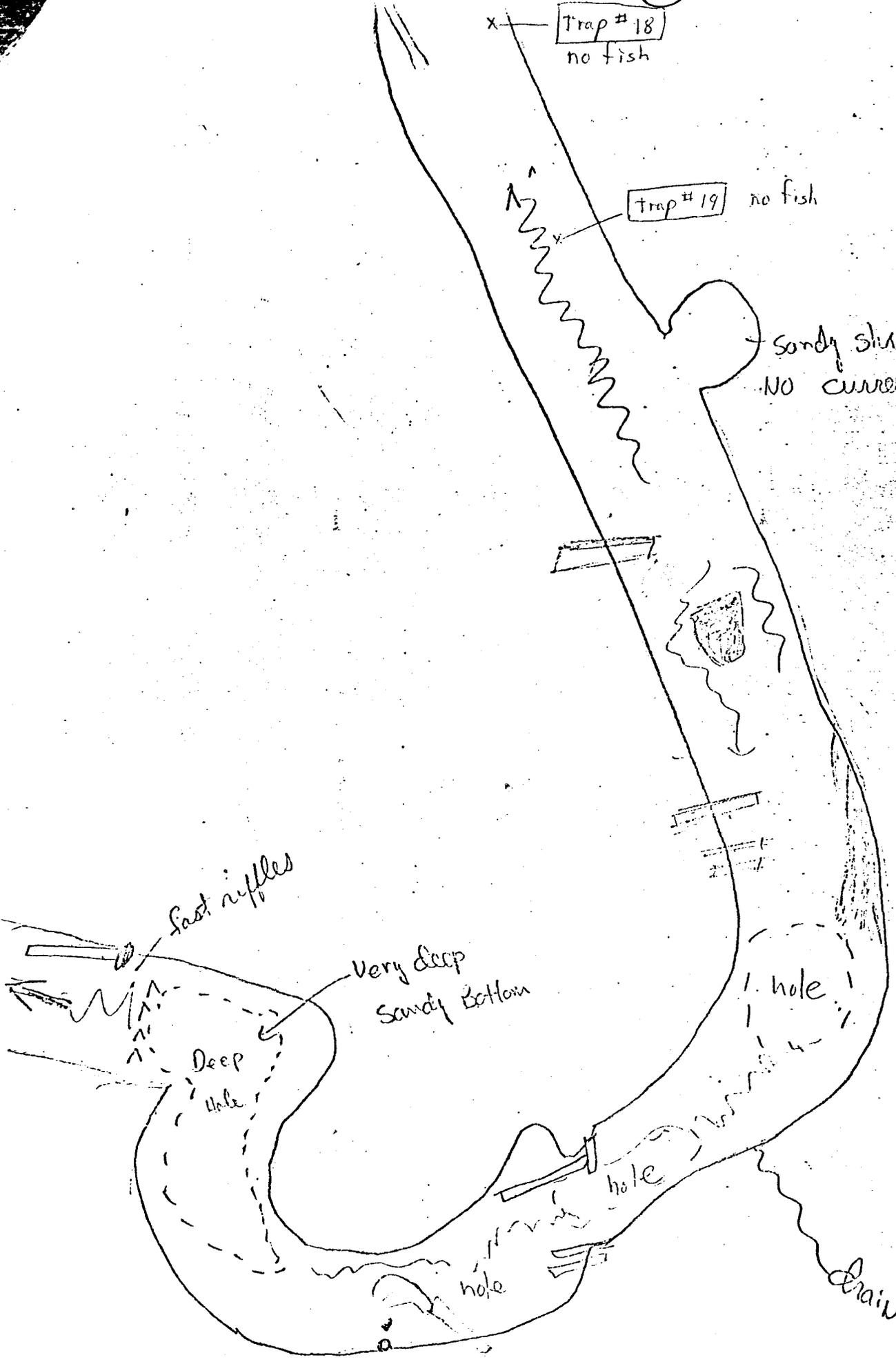
Deep
Hole

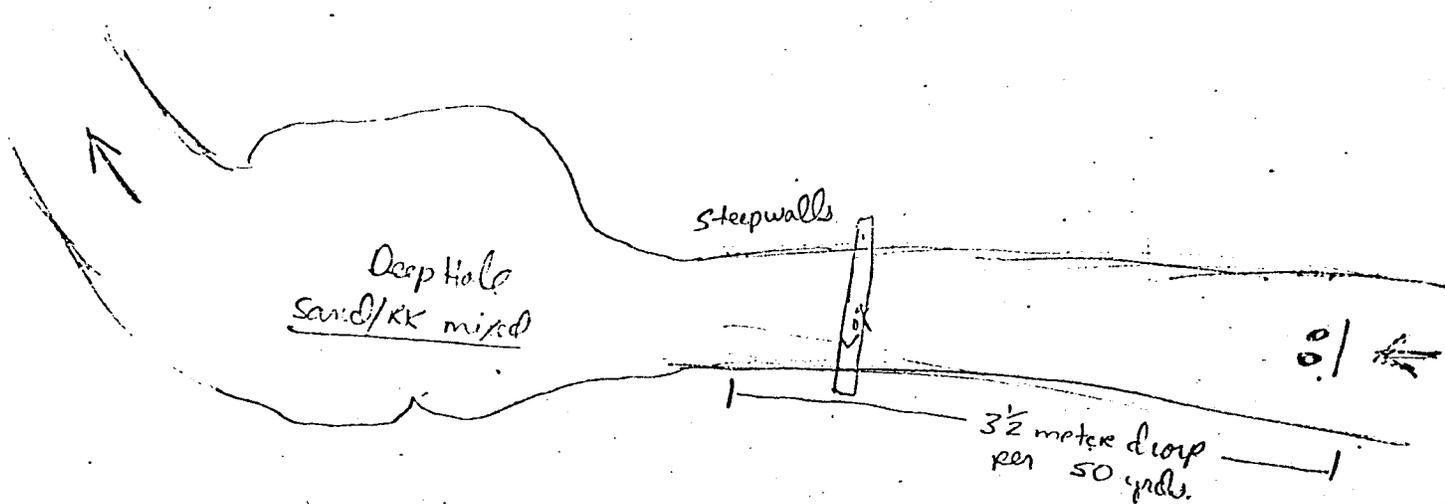
hole

hole

hole

drain





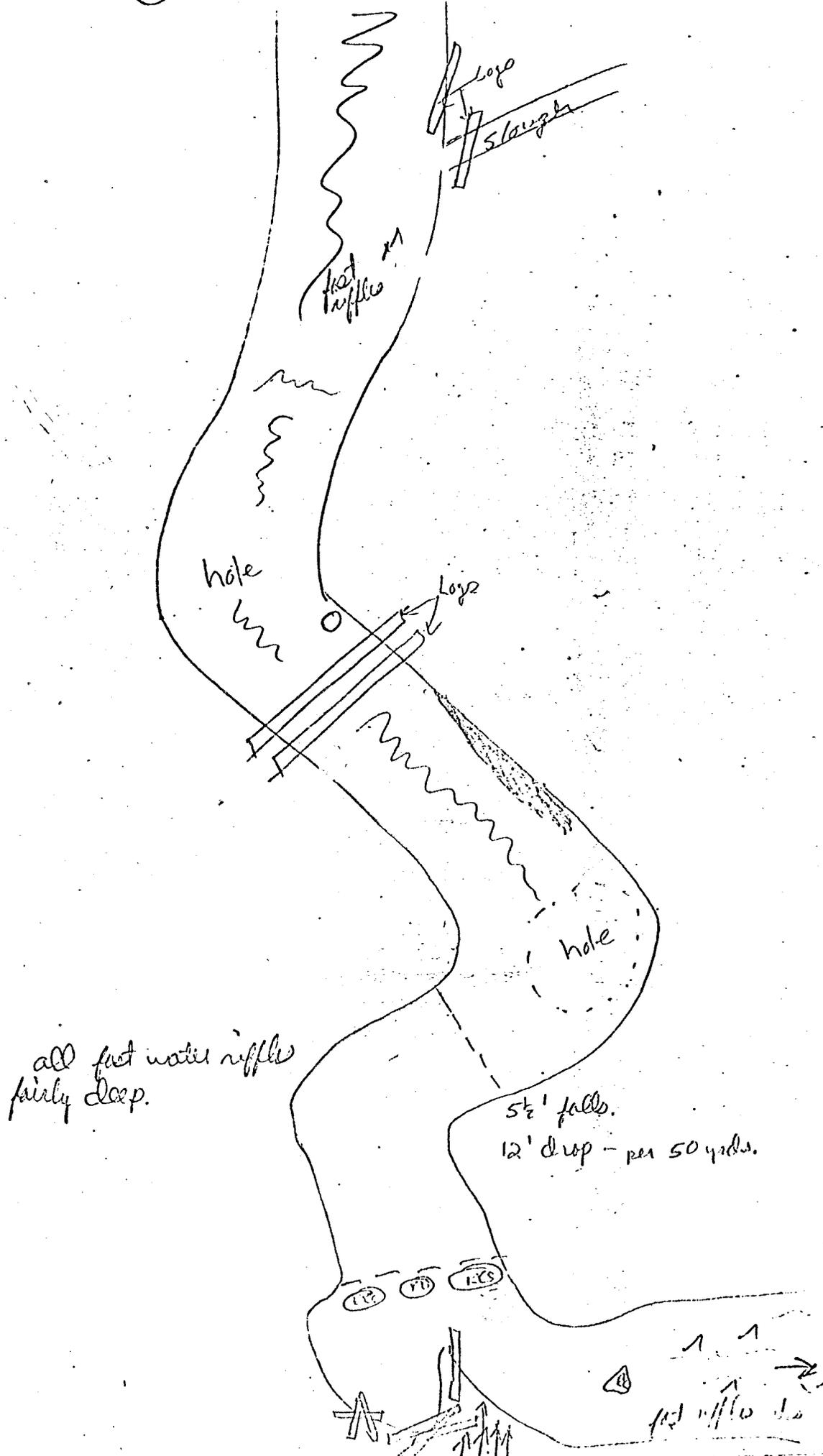
Deep Hole
Sand/RR mixed

steep walls

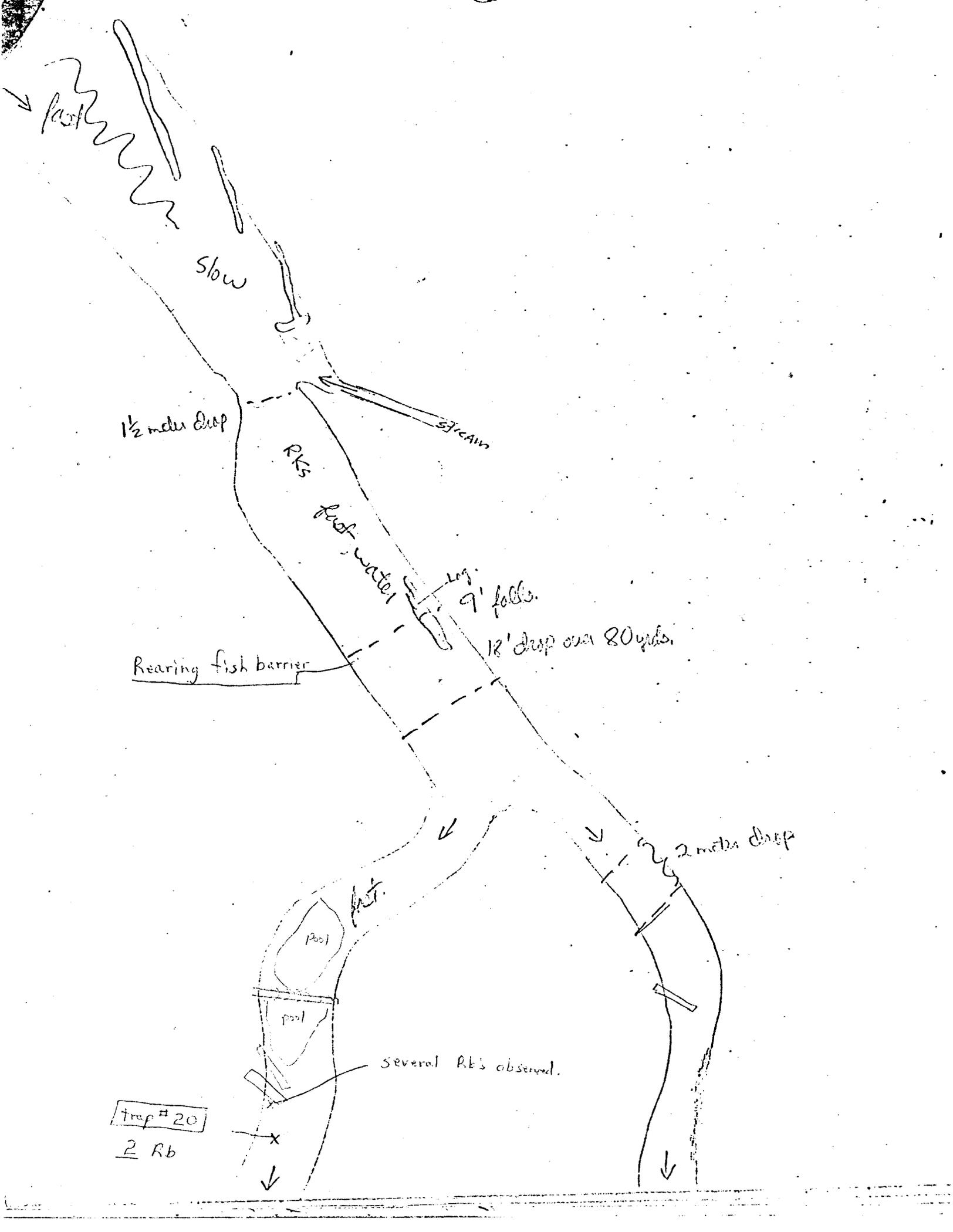
3 1/2 meter drop
per 50 yds.

8/1 →

8



all first water riffles fairly deep.



fast

slow

1 1/2 meter drop

stream

RKs

fast water

log
9' falls

18' drop over 80 yds.

Rearing fish barrier

2 meter drop

pool

pool

Several Rb's observed.

trap # 20

2 Rb

no fish
Trap #21

2 meter deep



Several Rb's observed

trail to Perseverance Lk.

slower
Hanging Bridge

S.H. redd 4/30/79

Trap #22

4 Rb

S.H. spawning
4/30/79

